Index to Volume 13

How to Use This Index

THIS Index is of similar form to the Cumulative Index of this journal, published in November, 1939, and is composed of two main divisions: The Author Index and the Subject Index.

The Subject Index to Volume 13 of *The Journal of the Acoustical Society of America* lists the titles of all the papers and abstracts under eleven section headings as follows: 1, Acoustical Society of America; 2, Architectural Acoustics; 3, Books and Bibliographies; 4, Ear and Hearing; 5, Applied Acoustics. Instruments and Apparatus; 6, Musical Instruments and Music; 7, Noise; 8, Standards; 9, Speech and Singing; 10, Supersonics; 11, Waves and Vibrations. Each of these sections is further divided into a considerable number of decimally numbered subjects, which are listed below under the heading, "Classification of Subjects." Each subject is divided into four parts entitled Papers, Subtitles, Abstracts, and Patents. Under Papers will be found the original titles of all the papers appearing in the journal on that subject. Under Abstracts are listed the titles of the papers presented at meetings. Since a great amount of valuable material appears in the journal in papers whose titles cannot fully describe all the subjects which the papers cover, many of the subtitles of papers have been indexed under the heading Subtitles. When subtitles covering the material did not appear in the paper, they were written; the captions of some of the figures were also included under this heading. Thus, while the Subtitles portion of the Index is informal, it is hoped that it will increase the probability of finding the desired information quickly. All patents appearing in the journal are listed under the heading Patents.

References on most subjects can be located immediately by a logical use of the Classification of Subjects below. In case the reference sought is of an unusual character such that there is uncertainty as to the subject under which it might have been classified, this can usually be found quite quickly by the process of eliminating the sections and subjects under which it is quite improbable that it might have been listed. In case of doubt, a title has often been listed under a number of subjects. As an example of the direct approach, suppose you wish to find data on the absorption coefficients for hairfelt. On looking over the section headings it is seen that this comes under the heading Architectural Acoustics, and Subject, Measured Sound Absorption Coefficients. Under Subtitles we find a reference to hairfelt, and on looking up this paper we find it entitled "The Acoustic Wattmeter, an Instrument for Measuring Sound Energy Flow," which title of itself would not have suggested the presence of data on hairfelt, thus demonstrating the value of having the index of Subtitles.

Obviously, the Author Index is more convenient than the Subject Index when one knows the name of the author of the paper in which he is interested.

The References to Contemporary Papers on Acoustics are identified in each issue by the same decimal numbers listed below, and may be consulted for references in other journals than our own. In Volume 13 these references will be found on pages 71, 194, 323 and 395.

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Dictionary of radio and television terms. Ralph Stranger. **13**: 395—1942
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Musical acoustics. Charles C. Culver. **13**: 322—1942
Physik und Technik des Tonfilms (Physics and technique of sound films). Hugo Lichte and Albert Narath. **13**: 321—1942
Voice, its production and reproduction. Douglas Stanley and J. P. Maxfield. **13**: 70—1941

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4.1 General, Unclassified

PAPERS

Cinematographc study of the conduction of sound in the human ear. H. G. Kobrak. **13**: 179—1941
Effect of middle ear pressure upon distortion. Ernest Glen Wever, Charles W. Bray and Merle Lawrence. **13**: 182—1941
Method for measuring the percentage of capacity for hearing speech. Edmund Prince Fowler. **13**: 373—1942

ABSTRACTS

Duration thresholds for the perception of certain transient phenomena. W. Türk (Akustische Zeits. **5**, 129–145 (1940)). **13**: 65—1941

Effects of pressure in the middle ear upon the electrical responses of the cochlea. Ernest Glen Wever, Charles W. Bray and Merle Lawrence. **13**: 83—1941

Experiments on short tones. H. D. Bouman. **13**: 84—1941

Stapedius muscle in relation to the conduction of sound to the inner ear. Ernest Glen Wever and Charles W. Bray. **13**: 334—1942

Study of sound conduction in the humn ear. (A motion picture.) H. G. Kobrak. **13**: 83—1941

Synchronization in the higher auditory pathways. J. D. Coakley. **13**: 84—1941

4.2 Anatomy and Physiology of the Ear

ABSTRACTS

Evidences for a neural quantum in auditory discrimination. S. S. Stevens, C. T. Morgan and J. Volkmann. **13**: 84—1941

Localization of response in the cochlea as determined by electrical recording. E. H. Kemp and Parker Johnson. **13**: 87—1941

4.3 Binaural Hearing. Localization

PAPER

Dynamic auditory localization. 1. The binaural intensity disparity limen. Adelbert Ford. **13**: 367—1942

4.4 Deafness

PAPERS

Change of phase caused by impedance deafness. Karl Lowy. **13**: 389—1942

Industrial noises and industrial deafness. Walter Rosenblith. **13**: 220—1942

Relation of audiogram measurements to hearing aid characteristics based on commercial experience. Fred W. Kranz and Carl E. Rudiger. **13**: 363—1942

ABSTRACTS

Altered acoustical resonance of the external auditory canal as a factor in the transient improvement of hearing obtained by fenestration operations in chronic progressive deafness. Emanuel M. Josephson. **13**: 83—1941

Electrical response of the auditory nerve to different sound intensities under pathological conditions. K. Lowy. **13**: 83—1941

Experiment on middle ear deafness. Karl Lowy. **13**: 334—1942

Industrial noises and industrial deafness. W. A. Rosenblith. **13**: 80—1941

Method for measuring the percentage of capacity for hearing speech. Edmund Prince Fowler. **13**: 335—1942

Temporary deafness in birds. Charles W. Bray and W. R. Thurlow. **13**: 335—1942

4.5 Instruments Relating to Hearing

PAPERS

Experiments on the pellet-type of artificial drum. Karl Lowy. **13**: 383—1942

Methods for measuring the performance of hearing aids. Frank F. Romanow. **13**: 294—1942

Relation of audiogram measurements to hearing aid characteristics based on commercial experience. Fred W. Kranz and Carl E. Rudiger. **13**: 363—1942

ABSTRACTS

Appeal to science for specialized hearing aids of true selective amplification. Matie E. Winston. **13**: 335—1942

Basis for the prediction of performance of deaf aids. Charles M. R. Balbi. **13**: 335—1942

Hearing aids. Fred W. Kranz (book review). **13**: 322—1942

Hearing aids: uniform and selective: monaural, diotic and binaural; air and bone conduction. Norman A. Watson. **13**: 335—1942

Relation of audiogram measurements to hearing-aid characteristics based on commercial experience. F. W. Kranz and C. E. Rudiger. **13**: 335—1942

Some considerations relative to the calibration of bone-conduction receivers for audiometers. L. A. Watson. **13**: 336—1942

PATENTS

Acoustic device. **13**: 400—1942
Audiometer. **13**: 327—1942
Auditory masking method. **13**: 77—1941
Bone conduction audiphone. **13**: 400—1942
Bone conduction hearing device. **13**: 76—1941
Bone telephone receiver. **13**: 401—1942
Custom-made hearing aid receiver tip. **13**: 199—1941
Ear protector. **13**: 401—1942
Ear stopper. **13**: 199—1941
Hearing aid. **13**: 198—1941
Hearing aid amplifier. **13**: 327—1942
Hearing aid device. **13**: 401—1942
Method for tseting bone conduction. **13**: 76—1941
Wearable bond-conduction hearing aid. **13**: 199—1941

4.7 Masking

SUBTITLES

Masking and spectrum levels for average room noise. Harvey Fletcher. **13**: 91—1941

Threshold hearing level curves for quiet and noisy rooms. Harvey Fletcher. **13**: 91—1941

4.9 Pitch

SUBTITLE

Duration thresholds for pitch perception. W. Türk. **13**: 66—1941

4.10 Subjective Tones

PAPER

Effect of middle ear pressure upon distortion. Ernest Glen Wever, Charles W. Bray and Merle Lawrence. **13**: 182—1941

ABSTRACTS

Contribution offered towards a discussion of the paper "Pitch and the missing fundamental." William Braid White. **13:** 87—1941

Pitch and the missing fundamental. Don Lewis **13:** 84—1941

5. Applied Acoustics, Instruments and Apparatus

5.1 General, Unclassified

ABSTRACTS

Acoustic experiments with an electronic switch. S. K. Wolf. **13:** 332—1942

Apparatus for the direct measurement of force-displacement characteristics of mechanical systems at audio-frequencies. J. R. Haynes. **13:** 332—1942

Steady circulations in the Kundt's tube. K. Schuster and W. Matz (Akustische Zeits. **5**, 349–352 (1940)). **13:** 320—1942

PATENTS

Acoustic apparatus. **13:** 401—1942
Acoustical projectile. **13:** 199—1941
Noise making tube. **13:** 327—1942

5.3 Acoustical Impedance Measurement (see also 11.4)

PAPERS

Acoustic wattmeter, an instrument for measuring sound energy flow. C. W. Clapp and F. A. Firestone. **13:** 124—1941

Continuously variable acoustic impedance. Edward C. Jordan. **13:** 8—1941

5.4 Analyzers and Filters. Acoustic Filters. Oscillographs (see also 5.15)

PAPERS

Acoustic filtration by membranes. L. W. Labaw. **13:** 353–1942

Acoustic filtration in parallel conduit structures. L. W. Labaw. **13:** 345—1942

Analyzer for sub-audible frequencies. H. H. Scott. **13:** 360—1942

ABSTRACTS

Acoustic filtration by membranes. Louis W. Labaw. **13:** 333—1942

Analyzer for sub-audible frequencies. H. H. Scott. **13:** 334—1942

PATENT

Receiver cap acoustic filter. **13:** 202—1941

5.5 Audiometers

PATENTS

Audiometer. **13:** 77—1941; 327—1942

5.51 Broadcasting

PAPER

Performance of broadcast studios designed with convex surfaces of plywood. C. P. Boner. **13:** 244—1942

ABSTRACT

Contemporary problems in television sound. C. L. Townsend. **13:** 334—1942

5.7 Frequency Standards. Frequency Measuring and Recording Instruments

ABSTRACT

Demonstration of the chromatic stroboscope as a general purpose frequency meter. O. H. Schuck and R. W. Young. **13:** 82—1941

PATENTS

Acoustic device. **13:** 400—1942
Bone conduction audiphone. **13:** 400—1942
Stethoscope. **13:** 401—1942
Vibratory frequency standard. **13:** 401, 402—1942
Visual tip for vibrating indicators. **13:** 401—1942

5.8 Loudspeakers, Horns (see also 5.13 and 5.17)

PAPERS

Low frequency horn of small dimensions. Paul W. Klipsch. **13:** 137—1942

Theory of conical sound radiators. W. N. Brown, Jr. **13:** 20—1941

SUBTITLE

Phase and delay characteristic of metal diaphragm direct radiator loudspeaker. Francis M. Wiener. **13:** 122—1941

ABSTRACT

System concept of electroacoustical systems. Hugh S. Knowles. **13:** 81—1941

PATENTS

Loudspeaker. **13:** 402—1942
Sound reproducing system. **13:** 402—1942

5.9 Microphones, Vibration Microphones, and Microphone Calibration Equipment

PAPERS

Analyzer for sub-audible frequencies. H. H. Scott. **13:** 360—1942

General purpose vibration meter. H. H. Scott. **13:** 46—1941

Phase distortion in electroacoustic systems. Francis M. Wiener. **13:** 115—1941

Uniphase unidirectional microphones. Benjamin B. Bauer. **13:** 41—1941

SUBTITLES

Phase distortion in microphones. Francis M. Wiener. **13:** 115—1941

Pressure calibration of miniature condenser microphones W. E. D96436 and W. E. 640. Francis M. Wiener. **13:** 117—1941

Reciprocity calibration of miniature condenser microphone in free space. Francis M. Wiener. **13:** 119—1941

ABSTRACTS

Absolute calibration of microphones. Guy S. Cook and Richard K. Cook. **13**: 81—1941

Apparatus for the direct measurement of force-displacement characteristics of mechanical systems at audiofrequencies. J. R. Haynes. **13**: 332—1942

General purpose vibration meter. H. H. Scott. **13**: 82—1941

Phase distortion in electroacoustical systems. Francis M. Wiener. **13**: 81—1941

PATENTS

Contact microphone. **13**: 403—1942

Electroacoustical apparatus. **13**: 200—1941

Microphone. **13**: 403—1942

Sound translating apparatus. **13**: 403—1942

Vibration measuring and recording apparatus. **13**: 200—1941

Vibration meter. **13**: 403—1942

5.10 Navigational Instruments. Depth and Altitude Finding Instruments. Geophysical Prospecting. Under-Water Sound. Submarine Detectors

PATENTS

Apparatus for and method of seismograph recording. **13**: 404—1942

Echo sounding apparatus. **13**: 404—1942

Geophysical instrument. **13**: 404—1942

Light and sound signaling system. **13**: 405—1942

Listening helmet for sound locators. **13**: 200—1941

Measurement of sound velocities in strata traversed by boreholes. **13**: 200—1941

Method and apparatus for recording waves. **13**: 328—1942

Method and apparatus for translating seismic waves. **13**: 404—1942

Method of geophysical investigation. **13**: 403—1942

Method of seismic surveying. **13**: 403—1942

Prospecting method and apparatus. **13**: 404—1942

Seismic exploration method. **13**: 404—1942

Seismic surveying. **13**: 328—1942

Seismograph prospecting apparatus. **13**: 404—1942

Sound direction indicator. **13**: 404—1942

5.15 Sound Level Meters. Level Recorders. Sound Pressure Measurement (see also 5.4 and 7.1)

PAPERS

Acoustic wattmeter, an instrument for measuring sound energy flow. C. W. Clapp and F. A. Firestone. **13**: 124—1941

General purpose vibration meter. H. H. Scott. **13**: 46—1941

Sound measurement room utilizing the live end-dead end studio principle. M. D. Stahl and W. C. Louden. **13**, 9—1941

ABSTRACT

General purpose vibration meter. H. H. Scott. **13**: 82—1941

PATENTS

Noise level indicator. **13**: 405—1942

Sound intensity recorder. **13**: 77—1941

5.16 Sound Recording and Reproducing (see also 5.13)

PAPERS

Correlation between elastic deformation and vertical forces in lateral recording. S. J. Begun and T. E. Lynch. **13**: 284—1942; Erratum. **13**, 392—1942

Large radius stylus for the reproduction of lateral cut phonograph records. John D. Reid. **13**: 274—1942

Mechanical and optical equipment for the stereophonic sound film system. E. C. Wente, R. Biddulph, L. A. Elmer and A. B. Anderson. **13**: 100—1941

Noise and wear reducing phonograph reproducer with controlled response. F. H. Goldsmith. **13**: 281—1942

Properties of the dulled lacquer cutting stylus. C. J. LeBel. **13**: 265—1942

Stereophonic sound film system—general theory. Harvey Fletcher. **13**: 89—1941

Stereophonic sound film system—pre- and post-equalization of compandor systems. John C. Steinberg. **13**: 107—1941

Tracing distortion in the reproduction of constant amplitude recordings. Ludwig W. Sepmeyer. **13**: 276—1942

ABSTRACTS

Automatic record changers and recorders. John F. Rider (book review). **13**: 395—1942

Discussion of several factors contributing to good recording. R. A. Lynn. **13**: 331—1942

Electrical equipment for the stereophonic sound-film system. W. B. Snow and A. R. Soffel. **13**: 86—1941

Errors in light band width measurements on phonograph records. Richard Bierl (Akustische Zeits. **5**, 145–147 (1940)). **13**: 190—1941

High fidelity from the musician's viewpoint. Wilmer T. Bartholomew. **13**: 331—1942

High fidelity from the musician's viewpoint. Ernest La Prade. **13**: 331—1942

Influence of elastic properties of disk material upon the "pinch-effect" in lateral recording. S. J. Begun and T. E. Lynch. **13**: 330—1942

Internally damped rollers. E. C. Wente and A. H. Müller. **13**: 86—1941

Large radius stylus for the reproduction of lateral cut phonograph records. John D. Reid. **13**: 330—1942

Light valve for the stereophonic sound-film system. E. C. Wente and R. Biddulph. **13**: 86—1941

Mechanical and optical equipment for the stereophonic sound-film system. E. C. Wente, R. Biddulph, L. A. Elmer and A. B. Anderson. **13**: 85—1941

Noise and wear reducing phonograph reproducer with controlled response. F. H. Goldsmith. **13**: 330—1942

Non-cinching film-rewind machine. L. A. Elmer. **13**: 86—1941

Phonograph pick-up of the moving coil type. Theodore Lindenberg, Jr. **13**: 330—1942

Physik und Technik des Tonfilms (Physics and technique of sound films). Hugo Lichte and Albert Narath (book review). **13**: 321—1942

Properties of the dulled lacquer cutting stylus. C. J. LeBel. **13**: 330—1942

Recording laboratory in the Library of Congress. Jerome B. Wiesner. **13**: 331—1942

Stereophonic sound-film system—general theory. Harvey Fletcher. **13**: 85—1941

Stereophonic sound-film system—pre-and post-equilization of compandor systems. J. C. Steinberg. **13**: 86—1941

Tracing distortion in the reproduction of constant amplitude recordings. Ludwig W. Sepmeyer. **13**: 80—1941

PATENTS

Cabinet for housing sound-reproducing apparatus. **13**: 201—1941

Cabinet for phonographs. **13**: 201—1941

Device for producing articulate sounds. **13**: 406—1942

Device for the production of sound vibrations of definite frequency by means of a pipe or whistle. **13**: 77—1941

Magnetic sound recording device. **13**: 405—1942

Sound apparatus. **13**: 328—1942

Sound characteristic control. **13**: 405—1942

Sound record. **13**: 201—1941

Sound recording device. **13**: 405—1942

Vibration record and method of making the same. **13**: 405—1942

5.17 Telephone Receivers (see also 5.8)

PATENTS

Receiver cap acoustic filter. **13**: 202—1941

Voice silencer. **13**: 201—1941

5.19 Tuning Forks

PATENT

Tuning fork. **13**: 202—1941

6. Musical Instruments and Music

6.1 General, Unclassified

PAPER

Musical theory in retrospect. Llewlyn S. Lloyd. **13**: 56—1941

ABSTRACT

Musical acoustics. Charles C. Culver (book review). **13**: 322—1942

PATENTS

Musical instrument. **13**: 328—1942

Musical string. **13**: 202—1941

6.2 Bells

PATENTS

Electric carillon. **13**: 406—1942

Electrical musical instrument for producing bell tones. **13**: 406—1942

6.3 Brass

PAPERS

Directivity and the acoustic spectra of brass wind instruments. Daniel W. Martin. **13**: 309—1942

Lip vibrations in a cornet mouthpiece. Daniel W. Martin. **13**: 305—1942

Resonance characteristics of a cornet. J. G. Woodward. **13**: 156—1941

Vibration of the walls of a cornet. H. P. Knauss and W. J. Yeager. **13**: 160—1941

SUBTITLES

Sound pressure *vs.* azimuth angle for cornet. Daniel W. Martin. **13**: 310—1942

Sound pressure *vs.* azimuth angle for French horn. Daniel W. Martin. **13**: 310—1942

ABSTRACTS

Directivity and the acoustic spectra of brass wind instruments. Daniel W. Martin. **13**: 333—1942

Lip vibrations in a cornet mouthpiece. Daniel W. Martin. **13**: 80—1941

Some characteristics of the tuning of valved wind instruments. Robert W. Young. **13**: 333—1942

PATENTS

Musical instrument. **13**: 77—1941

Piston valve for musical wind instruments. **13**: 406—1942

6.4 Drums and Traps

PATENTS

Apparatus and method for tuning. **13**: 329—1942

Kettle drum tuning mechanism or tympano. **13**: 406—1942

6.5 Organs (see also 6.9)

PAPERS

Harmonic relations in the partials of organ pipes and of vibrating strings. A. W. Nolle and C. P. Boner. **13**: 145—1941

Initial transients of organ pipes. A. W. Nolle and C. P. Boner. **13**: 149—1941

ABSTRACTS

Some aspects of the transient and steady state tones of organ pipes and of vibrating strings. A. W. Nolle and C. P. Boner. **13**: 333—1942

Tone spectrum of a Silbermann organ. W. Lottermosser (Akustische Zeits. **5**, 324–330 (1940)). **13**: 189—1941

PATENTS

Control for electrically operated pipe organ. **13**: 406—1942

Electrical organ. **13**: 78—1941

Musical instrument. **13**: 406—1942

6.6 Pianos

PATENTS

Electric piano. **13**: 407—1942

Electric piano construction. **13:** 407—1942
Key action for musical instruments. **13:** 407—1942
Keyboard for electrical musical instruments. **13:** 406—1942
Mechanism for pianos. **13:** 202—1941
Piano action. **13:** 202—1941; 407, 408—1942
Piano key and action connection. **13:** 408—1942
Piano structure. **13:** 407—1942
Producing harmonic tones in pianos. **13:** 408—1942
Sounding board for pianos. **13:** 78—1941
Transposing keyboard for pianos and accordions. **13:** 329—1942
Tuning fork piano. **13:** 408—1942

6.7 Violin Family

PAPERS

Harmonic relations in the partials of organ pipes and of vibrating strings. A. W. Nolle and C. P. Boner. **13:** 145—1941
Physical properties of wood for violin construction. R. B. Abbott and G. H. Purcell. **13:** 54—1941

PATENTS

Bow for musical stringed instruments. **13:** 408—1942
Musical instrument. **13:** 408—1942
Tuning device for string instruments. **13:** 408—1942

6.9 Electronic Musical Instruments (see also 6.5)

PATENTS

Electrical musical instrument. **13:** 78, 203—1941; 329, 409—1942
Electrical organ. **13:** 78—1941
Electric music instrument. **13:** 78—1941
Electronic musical instrument. **13:** 203—1941
Musical instrument. **13:** 203, 204—1941; 409—1942
Sound amplification method and device. **13:** 203—1941

7. Noise

7.4 City Noise

PAPERS

Acoustical Society and noise abatement. Paul E. Sabine. **13:** 207—1942
Bibliography on noise. P. E. Sabine. **13:** 210—1942
City noise. Shirley W. Wynne. **13:** 214—1942
Industrial noises and industrial deafness. Walter A. Rosenblith. **13:** 220—1942
Report of activities of the National Noise Abatement Council. George P. Little and F. Edgar McGee. **13:** 211—1942
What can the hospital do about noise? Charles F. Neergaard. **13:** 217—1942

ABSTRACTS

Acoustical Society and noise abatement. Paul E. Sabine. **13:** 332—1942
City noise. Shirley W. Wynne. **13:** 331—1942
Effect of high intensity noise levels on surrounding areas. J. S. Parkinson. **13:** 332—1942
Greater Chicago noise survey. H. A. Leedy. **13:** 332—1942
History of noise abatement in New York City. Ernest H. Peabody. **13:** 332—1942
Report of activities of the national noise abatement council. George P. Little and F. Edgar McGee. **13:** 331—1942

7.6 Noise in Buildings

PAPER

What can the hospital do about noise? Charles F. Neergaard. **13:** 217—1942

ABSTRACT

What can the hospital do about noise? Charles F. Neergaard. **13:** 332—1942

PATENT

Acoustic material. **13:** 197—1941

7.7 Machinery Noise

PAPERS

Ball bearing noise and vibration. Walter T. Buhl. **13:** 51—1941
Sound measurement room utilizing the live end-dead end studio principle. M. D. Stahl and W. C. Louden. **13:** 9—1941

ABSTRACT

Effect of high intensity noise levels on surrounding areas. J. S. Parkinson. **13:** 332—1942

PATENTS

Apparatus for silencing pulsating gases. **13:** 204—1941
Device for destroying sound waves more especially utilizable as a silencer for combustion and explosion engines. **13:** 79—1941
Exhaust silencer. **13:** 329—1942
Method of making mufflers. **13:** 410—1942
Muffler. **13:** 78, 204—1941; 409, 410—1942
Muffler and silencer construction. **13:** 204—1941
Muffler construction. **13:** 79—1941
Pipe line noise eliminator. **13:** 409—1942
Silencer. **13:** 78, 204—1941; 410—1942
Silencer construction. **13:** 204—1941; 409—1942
Silencer for internal combusion engines. **13:** 78—1941
Silencer for rock drills. **13:** 204—1941
Silencing device. **13:** 410—1942
Spark arrester silencer. **13:** 410—1942
Suction muffler. **13:** 78—1941

8. Standards

8.1 General, Unclassified

ABSTRACT

Dictionary of radio and television terms. Ralph Stranger (book review). **13:** 395—1942

9. Speech and Singing

9.1 General, Unclassified

PAPER

Method of measuring the percentage of capacity for hearing speech. Edmund Prince Fowler. **13**: 373—1942

ABSTRACT

Voice, its production and reproduction. Douglas Stanley and J. P. Maxfield (book review). **13**: 70—1941

9.6 Instruments Relating to Speech and Singing

PATENT

System for the artificial production of vocal or other sounds. **13**: 204—1941

10. Supersonics (Ultrasonics)

10.1 General, Unclassified

ABSTRACT

Grundlagen und Ergebnisse der Ultraschallforschung. Egon Hiedemann (book review). **13**: 321—1942

10.3 Supersonic Instruments

PATENTS

Dog whistle. **13**: 205—1941

High frequency sound generator. **13**: 205—1941

10.4 Gases, Supersonic Velocities, Dispersion, and Absorption (see also 11.3)

PAPER

Temperature and frequency effects on ultrasonic velocities in carbon dioxide. C. J. Overbeck and H. C. Kendall. **13**: 26—1941

10.5 Liquids, Supersonic Velocities, Dispersion, and Absorption

PAPERS

Absorption of ultrasonic waves in highly viscous liquids. Joseph Lawrence Hunter. **13**: 36—1941

Origin of the absorption of ultrasonic waves in liquids. Karl F. Herzfeld. **13**: 33—1941

SUBTITLE

Absorption *versus* temperature for olive oil, glycerine, linseed oil, and castor oil. Joseph Lawrence Hunter. **13**: 38—1941

PATENT

Method of extracting constituents of living cells. **13**: 79—1941

10.8 Chemical Effects of Supersonic Waves

PATENTS

Breaking petroleum emulsions. **13**: 410—1942

Separation of phases with the aid of sonic waves. **13**: 410—1942

10.9 Biological Effects of Supersonic Waves

PATENT

Method of extracting constituents of living cells. **13**: 79—1941

11. Waves and Vibrations

11.3 Propagation of Sound. Absorption during Propagation. Velocity of Sound (see also 10.4)

PAPER

Velocity of sound in air. H. C. Hardy, D. Telfair and W. H. Pielemeier. **13**: 226—1942

ABSTRACT

Corrections on the measurements of the velocity of sound in gases. W. H. Pielemeier and H. C. Hardy. **13**: 80—1941

11.4 Radiation from Vibrating Objects. Acoustical Impedance. Mechanical Impedance (see also 5.3)

PAPERS

Heat conduction effects in sound emission. Ray S. Alleman. **13**: 23—1941

Theory of conical sound radiators. W. N. Brown, Jr. **13**: 20—1941

11.6 Sound Transmission Through Tubes

PAPERS

Acoustic filtration by membranes. L. W. Labaw. **13**: 353—1942

Acoustic filtration in parallel conduit structures. L. W. Labaw. **13**: 345—1942

ABSTRACT

Steady circulations in the Kundt's tube. K. Schuster and W. Matz (Akustische Zeits. **5**, 349–352 (1940)). **13**: 320—1942

11.7 Theory of Waves and Vibrating Systems

PAPERS

Frequency distribution of normal modes. Glenn M. Roe. **13**: 1—1941

Harmonic relations in the partials of organ pipes and of vibrating strings. A. W. Nolle and C. P. Boner. **13**: 145—1941

ABSTRACTS

Acoustic filtration by membranes. Louis W. Labaw. **13**: 333—1942

Duration thresholds for the perception of certain transient phenomena. W. Türk (Akustische Zeits. **5**, 129–145 (1940)). **13**: 65—1941